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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/695,784	10/30/2003	Kazuyoshi Isaji	11-209	7746

23400 7590 10/06/2004

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EXAMINER

BROADHEAD, BRIAN J

ART UNIT	PAPER NUMBER
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3661

DATE MAILED: 10/06/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/695,784	Applicant(s) ISAJI ET AL.	
	Examiner Brian J. Broadhead	Art Unit 3661	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 8-16 is/are rejected.
- 7) ☒ Claim(s) 7 and 17 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>10-30-03</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 4, 6, 10, 12, and 16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

3. Claim 4 recites the limitation "the range of said estimated maximum braking force" in line 4. There is insufficient antecedent basis for this limitation in the claim.=

4. Claim 6 recites the limitation " the range of said estimated maximum braking force " in line 3. There is insufficient antecedent basis for this limitation in the claim.

5. Claim 10 recites the limitation " the range of said estimated maximum braking force" in line 4. There is insufficient antecedent basis for this limitation in the claim.

6. Claim 12 recites the limitation " the range of said estimated maximum braking force " in line 3. There is insufficient antecedent basis for this limitation in the claim.

7. Claim 16 recites the limitation " the range of said estimated maximum braking force " in line 4. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the

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applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1, 2, 3, 4, 5, 8, 9, 10, 11, 13, 14, and 15 are rejected under 35

U.S.C. 102(e) as being anticipated by Watanabe et al., 2004/0085197.

3. As per claims 1, 2, 8, and 13, Watanabe et al. disclose a brake commanding element for making a judgment based on input information as to whether a vehicle should decelerate or not and for generating a brake command when it is determined that the vehicle should decelerate in paragraph 87; a braking element for applying brake on the vehicle with a predetermined braking force corresponding to said brake command generated by said brake commanding element in paragraph 87; and a braking force restricting element for restricting a maximum value of said braking force to be generated by said braking element in response to said brake command to a value smaller by a predetermined ratio than an estimated maximum braking force being estimated based on information relating to a road surface friction coefficient in paragraphs 126-128; said brake commanding element commands an automatic brake operation carried out for automatically decelerating the vehicle when it is judged that there is a prospective danger of vehicle collision or there is a necessity of securing safety of the vehicle based on entered collision danger information relating to collision danger of the vehicle relative to a forward obstacle or relevant information for vehicle safety in paragraph 87; and said braking force restricting element sets a maximum value of an automatic braking force, being said braking force to be generated by said

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braking element during said automatic brake operation, to a value smaller by a predetermined ratio than said estimated maximum braking force in paragraphs 126-128.

4. As per claims 3, 9, and 14, Watanabe et al. disclose wherein said braking force restricting element sets a maximum value of said automatic braking force to somewhere in a range corresponding to 5% to 60% of said estimated maximum braking force in paragraph 126.

5. As per claims 4, 10, and 15, Watanabe et al. disclose wherein said braking force restricting element sets a braking force higher than an inherent braking force corresponding to a manual brake operation amount, within the range of said estimated maximum braking force being estimated based on said road surface friction coefficient, when a manual braking operation is carried out during said automatic brake operation in paragraph 87.

6. As per claims 5 and 11, Watanabe et al. disclose wherein said braking force restricting element sets a braking force higher than an inherent braking force corresponding to a manual brake operation amount, regardless of said estimated maximum braking force, when a manual braking operation is carried out during said automatic brake operation in paragraph 161.

Allowable Subject Matter

7. Claims 7 and 17 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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8. Claims 6, 12, and 16 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

9. The following is a statement of reasons for the indication of allowable subject matter: the prior art of record does not disclose said braking force restricting element increases said braking force within the range of said estimated maximum braking force, when a driver applies none of manual braking, manual steering, and manual accelerating operations when a predetermined time has elapsed after said automatic brake operation is started; and said braking force restricting element allows the automatic brake operation in which the braking force is maximized when it is judged that the possibility of avoiding vehicle collision by steering is lower than a predetermined rate.

Conclusion


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian J. Broadhead whose telephone number is 703-308-9033. The examiner can normally be reached on Monday through Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Black can be reached on 703-305-8233. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


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